

10/ 551 735

036217/US/2 - 475387-00191 PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s) : Guillermo J. Tearney et al.

Serial No. : To be assigned

Filed : Herewith (September 29, 2005)

Entitled : SPECKLE REDUCTION IN OPTICAL COHERENCE  
TOMOGRAPHY BY PATH LENGTH ENCODED ANGULAR  
COMPOUNDING

Group Art Unit : To be assigned

Examiner : To be assigned

INFORMATION DISCLOSURE STATEMENT**EXPRESS MAIL NO.: EV 416 731 454 US**

Commissioner for Patents

P.O. Box 1450

Alexandria, Virginia 22313-1450

Dear Sir:

Pursuant to 37 C.F.R. §§ 1.56 and 1.97(b), applicants bring to the attention of the Examiner the documents listed on the attached Form PTO 1449, and respectfully request that the listed documents be considered by the Examiner and made of record in the above-captioned application. Copies of the United States patent references listed on the Form PTO-1449 are not enclosed, but the PCT, foreign and non-patent references are enclosed.

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that the listed documents are material or constitute "prior art." If the Examiner applies the documents as prior art against any claim in the application and applicants determine that the cited documents do not constitute "prior art" under

**10/ 551 735**

036217/US/2 - 475387-00191

**JCO5 Rec'd PCT/PTO 29 SEP 2005** PATENT

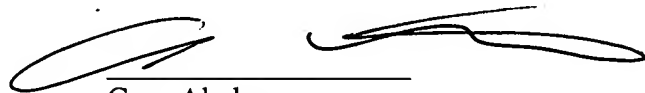
United States law, applicants reserve the right to present to the Office the relevant facts and law regarding the appropriate status of the documents.

Applicants further reserve the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should the documents be applied against the claims of the present application.

This submission is being filed before any action by the U.S. Patent and Trademark Office on the merits. Therefore, applicants do not believe that any fee is due in connection with the submission of this paper. However, if any fee is due, or if any overpayment has been made, the Commissioner is authorized to charge any such fee or credit any overpayment, to our Deposit Account No. 50-2054.

Respectfully submitted,

**DORSEY & WHITNEY, LLP**



Gary Abelev  
PTO Reg. No. 40,479  
Attorneys for Applicants  
(212) 415-9371

4820-7349-1456\1

Form PTO-1449 U.S. Department of Commerce  
(REV. 2-82) Patent and Trademark Office

Atty. Docket No.  
036217/US/2 - 475387-  
00191

Serial No.  
To be assigned

10/551735

**INFORMATION DISCLOSURE STATEMENT  
BY APPLICANT**  
(Use several sheets if necessary)

Applicant(s)  
Guillermo J. Tearney

Filing Date  
Herewith (September 29,  
2005)

Group  
To be assigned

**U.S. PATENT DOCUMENTS**

*Exam. Init.	Document No.								Date	Name	Class	Subclass	Filing Date if Appropriate
	2	3	3	9	7	5	4		January 25, 1944	P.H. Brace			
	4	6	0	1	0	3	6		July 15, 1986	Faxvog et al			
	4	6	3	1	4	9	8		December 23, 1986	Cutler			
	4	8	6	8	8	3	4		September 19, 1989	Fox et al			
	4	9	2	5	3	0	2		May 15, 1990	Cutler			
	4	9	6	5	4	4	1		October 23, 1990	Picard			
	4	9	9	3	8	3	4		February 19, 1991	Carlhoff et al			
	5	0	4	0	8	8	9		August 20, 1991	Keane			
	5	0	4	6	5	0	1		September 10, 1991	Crilly			
	5	1	2	0	9	5	3		June 9, 1992	Harris			
	5	1	9	7	4	7	0		March 30, 1993	Helfer et al			
	5	2	9	3	8	7	2		March 15, 1994	Alfano et al			
	5	3	1	7	3	8	9		May 31, 1994	Hochberg et al			
	5	3	2	1	5	0	1		June 14, 1994	Swanson et al			
	5	3	5	3	7	9	0		October 11, 1994	Jacques et al			
	5	3	8	3	4	6	7		January 24, 1995	Auer et al			
	5	4	1	9	3	2	3		May 30, 1995	Kittrell et al			
	5	4	3	9	0	0	0		August 8, 1995	Gunderson et al			
	5	4	4	1	0	5	3		August 15, 1995	Lodder et al			
	5	4	5	9	5	7	0		October 17, 1995	Swanson et al			
	5	4	6	5	1	4	7		November 7, 1995	Swanson			
	5	4	8	6	7	0	1		January 23, 1996	Norton et al			
	5	4	9	1	5	5	2		February 13, 1996	Kittrell			
	5	5	6	2	1	0	0		October 8, 1996	Kittrell et al			

Examiner

Date Considered

\* Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 U.S. Department of Commerce  
(REV. 2-82) Patent and Trademark Office

Atty. Docket No.  
036217/US/2 - 475387-  
00191

Serial No.  
To be assigned  
**10/551735**

**INFORMATION DISCLOSURE STATEMENT  
BY APPLICANT**  
(Use several sheets if necessary)

Applicant(s)  
Guillermo J. Tearney

Filing Date  
Herewith (September 29,  
2005)

Group  
To be assigned

		5	5	8	3	3	4	2	December 10, 1996	Koji Ichie			
		5	5	9	0	6	6	0	January 7, 1997	MacAulay et al			
		5	6	0	1	0	8	7	February 11, 1997	Richards-Kortum et al			
		5	6	9	7	3	7	3	December 16, 1997	Gunderson et al			
		5	7	1	9	3	9	9	February 17, 1998	Alfano et al			
		5	7	4	8	5	9	8	May 5, 1998	Swanson et al			
		5	7	8	4	3	5	2	July 21, 1998	Swanson et al.			
		5	7	9	5	2	9	5	August 18, 1998	Hellmuth et al			
		5	8	0	3	0	8	2	September 8, 1998	Stapleton et al			
		5	8	4	0	0	2	3	November 24, 1998	Oraevsky et al			
		5	8	4	2	9	9	5	December 1, 1998	Mahadevan-Jansen et al			
		5	8	6	5	7	5	4	February 2, 1999	Sevick-Muraca et al			
		5	8	7	1	4	4	9	February 16, 1999	David Lloyd Brown			
		5	9	2	1	9	2	6	July 13, 1999	Rolland et al			
		5	9	5	6	3	5	5	September 21, 1999	Swanson et al			
		5	9	6	8	0	6	4	October 19, 1999	Selmon et al			
		5	9	8	7	3	4	6	November 16, 1999	Benaron et al			
		5	9	9	4	6	9	0	November 30, 1999	Kulkarni et al			
		6	0	0	2	4	8	0	December 14, 1999	Izatt et al			
		6	0	0	6	1	2	8	December 21, 1999	Izatt et al			
		6	0	1	0	4	4	9	January 4, 2000	Selmon et al			
		6	0	3	3	7	2	1	March 7, 2000	Nikos Nassuphis			
		6	0	4	4	2	8	8	March 28, 2000	Wake et al			
		6	0	4	8	7	4	2	April 11, 2000	Weyburne et al			
		6	0	6	9	6	9	8	May 30, 2000	Ozawa et al			
		6	0	9	1	9	8	4	July 18, 2000	Perelman et al			
		6	1	1	1	6	4	5	August 29, 2000	Tearney et al			

Examiner

Date Considered

\* Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 U.S. Department of Commerce  
(REV. 2-82) Patent and Trademark Office

Atty. Docket No.  
036217/US/2 - 475387-  
00191

Serial No.  
10/551735  
To be assigned

**INFORMATION DISCLOSURE STATEMENT  
BY APPLICANT**  
(Use several sheets if necessary)

Applicant(s)  
Guillermo J. Tearney

Filing Date  
Herewith (September 29,  
2005)

Group  
To be assigned

	6	1	1	7	1	2	8	September 12, 2000	Kenton W. Gregory			
	6	1	2	0	5	1	6	September 19, 2000	Selmon et al			
	6	1	3	4	0	0	3	October 17, 2000	Tearney et al			
	6	1	4	1	5	7	7	October 31, 2000	Rolland et al			
	6	1	5	1	5	2	2	November 21, 2000	Alfano et al			
	6	1	5	9	4	4	5	December 12, 2000	Klaveness et al			
	6	1	6	0	8	2	6	December 12, 2000	Swanson et al			
	6	1	6	1	0	3	1	December 12, 2000	Hochmann et al			
	6	1	7	5	6	6	9	January 16, 2001	Colston et al			
	6	1	8	5	2	7	1	February 6, 2001	Richard Estyn Kinsinger			
	6	1	9	1	8	6	2	February 20, 2001	Swanson et al			
	6	2	0	1	9	8	9	March 13, 2001	Whitehead et al.			
	6	2	0	8	8	8	7	March 27, 2001	Richard H. Clarke			
	6	2	8	2	0	1	1	August 28, 2001	Tearney et al			
	6	3	4	1	0	3	6	January 22, 2002	Tearney et al			
	6	3	7	7	3	4	9	April 23, 2002	Adolf Friedrich Fercher			
	6	4	2	1	1	6	4	July 16, 2002	Tearney et al			
	6	4	8	5	4	1	3	November 26, 2002	Boppart et al			
	6	4	8	5	4	8	2	November 26, 2002	W. Martin Belef			
	6	5	0	1	5	5	1	December 31, 2002	Tearney et al			
	6	5	5	2	7	9	6	April 22, 2003	Magnin et al			
	6	5	6	4	0	8	7	May 13, 2003	Pitris et al			
	6	6	2	2	7	3	2	September 23, 2003	Brent R. Constantz			
	6	6	8	5	8	8	5	February 3, 2004	Nolte et al.			
	6	6	8	7	0	0	7	February 3, 2004	Meigs			
	6	8	0	6	9	6	3	October 19, 2004	Wälti et al.			

Examiner

Date Considered

\* Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 U.S. Department of Commerce  
(REV. 2-82) Patent and Trademark Office

Atty. Docket No.  
036217/US/2 - 475387-  
00191

Serial No.

To be assigned

10/551735

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use several sheets if necessary)

Applicant(s)  
Guillermo J. Tearney

Filing Date  
Herewith (September 29,  
2005)

Group  
To be assigned

2002	0	1	6	1	3	5	7	October 31, 2002	Rox et al			
2002	0	1	6	3	6	2	2	November 7, 2002	Magnin et al			
2003	0	0	2	3	1	5	3	January 30, 2003	Izatt et al			
2003	0	2	3	6	4	4	3	December 25, 2003	Cespedes et al			
2003	0	0	2	6	7	3	5	February 6, 2003	Nolte et al.			
2004	0	1	6	6	5	9	3	August 26, 2004	Nolte et al.			

## FOREIGN PATENT DOCUMENT

	Document No.								Date	Country	Class	SubClass	Translator	
													Yes	No
	4	3	0	9	0	5	6	September 22, 1994	Germany					
	2	2	0	9	2	2	1	May 4, 1989	Great Britain					
	0	1	1	0	2	0	1	June 13, 1984	European					
	0	2	5	1	0	6	2	January 7, 1988	European					
	9	2	1	9	9	3	0	November 12, 1992	WIPO					
	9	3	0	3	6	7	2	March 4, 1993	WIPO					
	9	7	3	2	1	8	2	September 4, 1997	WIPO					
	9	8	3	5	2	0	3	August 13, 1998	WIPO					
	9	9	4	4	0	8	9	September 2, 1999	WIPO					
	9	9	5	7	5	0	7	November 11, 1999	WIPO					
	0	0	5	8	7	6	6	October 5, 2000	WIPO					
	0	1	4	2	7	3	5	June 14, 2001	WIPO					
	0	2	5	4	0	2	7	July 11, 2002	WIPO					

Examiner

Date Considered

\* Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 U.S. Department of Commerce  
(REV. 2-82) Patent and Trademark Office

Atty. Docket No.  
036217/US/2 - 475387-  
00191

Serial No.  
To be assigned

107 551735

**INFORMATION DISCLOSURE STATEMENT  
BY APPLICANT**  
(Use several sheets if necessary)

Applicant(s)  
Guillermo J. Tearney

Filing Date  
Herewith (September 29,  
2005)

Group  
To be assigned

0	3	0	2	0	1	1	9	March 13, 2003	WIPO				
	0	1	3	8	8	2	0	May 31, 2001	WIPO *				

\* Reference cited in International Search Report and U.S. equivalent is provided.

**OTHER DOCUMENTS (including Author, Title Date, Pertinent Pages, Etc.)**

			Fujimoto et al., "High Resolution in Vivo Intra-Arterial Imaging with Optical Coherence Tomography", <u>Official Journal of the British Cardiac Society</u> , Vol. 82, pages 128-133 Heart, 1999
			D. Huang et al., "Optical Coherence Tomography", <u>SCIENCE</u> , Vol. 254, pages 1178-1181, November 1991
			Tearney et al., "High-Speed Phase -and Group Delay Scanning with a Grating Based Phase Control Delay Line", <u>Optics Letters</u> , Vol. 22, Pages 1811-1813, December 1997
			Rollins, et al., "In Vivo Video Rate Optical Coherence Tomography", <u>Optics Express</u> , Vol. 3, pages 219-229, September 1998
			Saxer, et al., High Speed Fiber-Based Polarization-Sensitive Optical Coherence Tomography of in Vivo Human Skin", <u>Optical Society of America</u> , Vol. 25, pages 1355-1357, September 2000
			Oscar Eduardo Martinez, "3000 Times Grating Compress or with Positive Group Velocity Dispersion", <u>IEEE</u> , Vol. QE-23, pages 59-64, January 1987
			Kulkarni, et al., "Image Enhancement in Optical Coherence Tomography Using Deconvolution", <u>Electronics Letters</u> , Vol. 33, pages 1365-1367, July 1997
			Bashkansky, et al., "Signal Processing for Improving Field Cross-Correlation Function in Optical Coherence Tomography", <u>Optics &amp; Photonics News</u> , Vol. 9, pages 8137-8138, May 1998
			Yung et al., "Phase-Domain Processing of Optical Coherence Tomography Images", <u>Journal of Biomedical Optics</u> , Vol. 4, pages 125-136, January 1999

Examiner

Date Considered

\* Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 U.S. Department of Commerce  
(REV. 2-82) Patent and Trademark Office

Atty. Docket No.  
036217/US/2 - 475387-  
00191

Serial No.  
To be assigned  
**10/ 551 735**

**INFORMATION DISCLOSURE STATEMENT  
BY APPLICANT**  
(Use several sheets if necessary)

Applicant(s)  
Guillermo J. Tearney

Filing Date  
Herewith (September 29,  
2005)

Group  
To be assigned

		Tearney, et al., "In Vivo Endoscopic Optical Biopsy with Optical Coherence Tomography", <u>SCIENCE</u> , Vol. 276, June 1997
		W. Drexler et al., "In Vivo Ultrahigh-Resolution Optical Coherence Tomography", <u>Opt. Lett.</u> Vol. 24, pp. 1221-3, September 1999
		Nicusor V. Iftimia et al., "A Portable, Low Coherence Interferometry Based Instrument for Fine Needle Aspiration Biopsy Guidance" Accepted to Review of Scientific Instruments, 2005
		Abbas, G.L., V.W.S. Chan et al., "Local-Oscillator Excess-Noise Suppression for Homodyne and Heterodyne-Detection", <u>Optics Letters</u> , Vol. 8, pages 419-421, August 1983 issue
		Agrawal, G.P., "Population Pulsations and Nondegenerate 4-Wave Mixing in Semiconductor-Lasers and Amplifiers", <u>Journal Of The Optical Society Of America B-Optical Physics</u> , Vol. 5, pages 147-159, January 1998
		Andretzky, P. et al., "Optical Coherence Tomography by Spectral Radar: Improvement of Signal-to-Noise Ratio", <u>The International Society for Optical Engineering, USA</u> , Vol. 3915, 2000
		Ballif, J. et al., "Rapid and Scalable Scans at 21 m/s in optical Low-Coherence Reflectometry", <u>Optics Letters</u> , Vol. 22, pages 757-759, June 1997
		Barfuss H. et al., "Modified Optical Frequency-Domain Reflectometry with High Spatial-Resolution for Components of Integrated Optic Systems", <u>Journal Of Lightwave Technology</u> , Vol. 7, pages 3-10, January 1989
		Beaud, P. et al., "Optical Reflectometry with Micrometer Resolution for the Investigation of Integrated Optical-Devices", <u>IEEE Journal of Quantum Electronics</u> , Vol. 25, pages 755-759, April 1989
		Bouma, Brett et al., "Power-Efficient Nonreciprocal Interferometer and Linear-Scanning Fiber-Optic Catheter for Optical Coherence Tomography", <u>Optics Letters</u> , Vol. 24, pages 531-533, April 1999
		Brinkmeyer, E. et al., "Efficient Algorithm for Non-Equidistant Interpolation of Sampled Data", <u>Electronics Letters</u> , Vol. 28, page 693, March 1992

Examiner

Date Considered

\* Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Form PTO-1449 U.S. Department of Commerce  
(REV. 2-82) Patent and Trademark Office

Atty. Docket No.  
036217/US/2 - 475387-  
00191

Serial No.  
To be assigned

10/551735

**INFORMATION DISCLOSURE STATEMENT  
BY APPLICANT**  
(Use several sheets if necessary)

Applicant(s)  
Guillermo J. Tearney

Filing Date  
Herewith (September 29,  
2005)

Group  
To be assigned

		Brinkmeyer, E. et al., "High-Resolution OCDR in Dispersive Wave-Guides", <u>Electronics Letters</u> , Vol. 26, pages 413-414, March 1990
		Chinn, S.R. et al., "Optical Coherence Tomography Using a Frequency-Tunable Optical Source", <u>Optics Letters</u> , Vol. 22, pages 340-342, March 1997
		Danielson, B.L. et al., "Absolute Optical Ranging Using Low Coherence Interferometry", <u>Applied Optics</u> , Vol. 30, page 2975, July 1991
		Dorrer, C. et al., "Spectral Resolution and Sampling Issues in Fourier-Transform Spectral Interferometry", <u>Journal of the Optical Society of America B-Optical Physics</u> , Vol. 17, pages 1795-1802, October 2000
		Dudley, J.M. et al., "Cross-Correlation Frequency Resolved Optical Gating Analysis of Broadband Continuum Generation in Photonic Crystal Fiber: Simulations and Experiments", <u>Optics Express</u> , Vol. 10, page 1215, October 2002
		Eickhoff, W. et al., "Optical Frequency-Domain Reflectometry in Single-Mode Fiber", <u>Applied Physics Letters</u> , Vol. 39, pages 693-695, 1981
		Fercher, Adolf "Optical Coherence Tomography", <u>Journal of Biomedical Optics</u> , Vol. 1, pages 157-173, April 1996
		Ferreira, L.A. et al., "Polarization-Insensitive Fiberoptic White-Light Interferometry", <u>Optics Communications</u> , Vol. 114, pages 386-392, February 1995
		Fujii, Yohji, "High-Isolation Polarization-Independent Optical Circulator", <u>Journal of Lightwave Technology</u> , Vol. 9, pages 1239-1243, October 1991
		Glance, B., "Polarization Independent Coherent Optical Receiver", <u>Journal of Lightwave Technology</u> , Vol. LT-5, page 274, February 1987
		Glombitza, U., "Coherent Frequency-Domain Reflectometry for Characterization of Single-Mode Integrated-Optical Wave-Guides", <u>Journal of Lightwave Technology</u> , Vol. 11, pages 1377-1384, August 1993

Examiner

Date Considered

\* Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 U.S. Department of Commerce  
(REV. 2-82) Patent and Trademark Office

Atty. Docket No.  
036217/US/2 - 475387-  
00191

Serial No.  
To be assigned  
**10/551735**

**INFORMATION DISCLOSURE STATEMENT  
BY APPLICANT**  
(Use several sheets if necessary)

Applicant(s)  
Guillermo J. Tearney

Filing Date  
Herewith (September 29,  
2005)

Group  
To be assigned

		Golubovic, B. et al., "Optical Frequency-Domain Reflectometry Using Rapid Wavelength Tuning of a Cr4+:Forsterite Laser", <u>Optics Letters</u> , Vol. 11, pages 1704-1706, November 1997
		Haberland, U. H. P. et al., "Chirp Optical Coherence Tomography of Layered Scattering Media", <u>Journal of Biomedical Optics</u> , Vol. 3, pages 259-266, July 1998
		Hammer, Daniel X. et al., "Spectrally Resolved White-Light Interferometry for Measurement of Ocular Dispersion", <u>Journal of the Optical Society of America A-Optics Image Science and Vision</u> , Vol. 16, pages 2092-2102, September 1999
		Harvey, K. C. et al., "External-Cavity Diode-Laser Using a Grazing-Incidence Diffraction Grating", <u>Optics Letters</u> , Vol. 16, pages 910-912, June 1991
		Hausler, Gerd et al., " 'Coherence Radar' and 'Spectral Radar' New Tools for Dermatological Diagnosis", <u>Journal of Biomedical Optics</u> , Vol., 3, pages 21-31, January 1998
		Hee, Michael R. et al., "Polarization-Sensitive Low-Coherence Reflectometer for Birefringence Characterization and Ranging", <u>Journal of the Optical Society of America B (Optical Physics)</u> , Vol. 9, page 903-908, June 1992
		Hotate Kazuo et al., "Optical Coherence Domain Reflectometry by Synthesis of Coherence Function", <u>Journal of Lightwave Technology</u> , Vol. 11, pages 1701-1710, October 1993
		Inoue, Kyo et al., "Nearly Degenerate 4-Wave-Mixing in a Traveling-Wave Semiconductor-Laser Amplifier", <u>Applied Physics Letters</u> , Vol. 51, pages 1051-1053, 1987
		Ivanov, A. P. et al., "New Method for High-Range Resolution Measurements of Light Scattering in Optically Dense Inhomogeneous Media", <u>Optics Letters</u> , Vol. 1, pages 226-228, December 1977
		Ivanov, A. P. et al., "Interferometric Study of the Spatial Structure of a Light-Scattering Medium", <u>Journal of Applied Spectroscopy</u> , Vol. 28, pages 518-525, 1978
		Kazovsky, L. G. et al., "Heterodyne Detection Through Rain, Snow, and Turbid Media: Effective Receiver Size at Optical Through Millimeter Wavelengths", <u>Applied Optics</u> , Vol. 22, pages 706-710, March 1983

Examiner

Date Considered

\* Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 U.S. Department of Commerce  
(REV. 2-82) Patent and Trademark Office

Atty. Docket No.  
036217/US/2 - 475387-  
00191

Serial No.  
To be assigned  
**10/551735**

**INFORMATION DISCLOSURE STATEMENT  
BY APPLICANT**  
(Use several sheets if necessary)

Applicant(s)  
Guillermo J. Tearney

Filing Date  
Herewith (September 29,  
2005)

Group  
To be assigned

		Kersey, A. D. et al., "Adaptive Polarization Diversity Receiver Configuration for Coherent Optical Fiber Communications", <u>Electronics Letters</u> , Vol. 25, pages 275-277, February 1989
		Kohlhaas, Andreas et al., "High-Resolution OCDR for Testing Integrated-Optical Waveguides: Dispersion-Corrupted Experimental Data Corrected by a Numerical Algorithm", <u>Journal of Lightwave Technology</u> , Vol. 9, pages 1493-1502, November 1991
		Larkin, Kieran G., "Efficient Nonlinear Algorithm for Envelope Detection in White Light Interferometry", <u>Journal of the Optical Society of America A-Optics Image Science and Vision</u> , Vol. 13, pages 832-843, April 1996
		Leitgeb, R. et al., "Spectral measurement of Absorption by Spectroscopic Frequency-Domain Optical Coherence Tomography", <u>Optics Letters</u> , Vol. 25, pages 820-822, June 2000
		Lexer, F. et al., "Wavelength-Tuning Interferometry of Intraocular Distances", <u>Applied Optics</u> , Vol. 36, pages 6548-6553, September 1997
		Mitsui, Takahisa, "Dynamic Range of Optical Reflectometry with Spectral Interferometry", <u>Japanese Journal of Applied Physics Part 1-Regular Papers Short Notes &amp; Review Papers</u> , Vol. 38, pages 6133-6137, 1999
		Naganuma, Kazunori et al., "Group-Delay Measurement Using the Fourier-Transform of an Interferometric Cross-Correlation Generated by White Light", <u>Optics Letters</u> , Vol. 15, pages 393-395, April 1990
		Okoshi, Takanori, "Polarization-State Control Schemes for Heterodyne or Homodyne Optical Fiber Communications", <u>Journal of Lightwave Technology</u> , Vol. LT-3, pages 1232-1237, December 1995
		Passy, R. et al., "Experimental and Theoretical Investigations of Coherent OFDR with Semiconductor-Laser Sources", <u>Journal of Lightwave Technology</u> , Vol. 12, pages 1622-1630, September 1994
		Podoleanu, Adrian G., "Unbalanced Versus Balanced Operation in an Optical Coherence Tomography System", <u>Applied Optics</u> , Vol. 39, pages 173-182, January 2000
		Price, J. H. V. et al., "Tunable, Femtosecond Pulse Source Operating in the Range 1.06-1.33 $\mu$ m Based on an Yb <sup>3+</sup> -doped Holey Fiber Amplifier", <u>Journal of the Optical Society of America B-Optical Physics</u> , Vol. 19, pages 1286-1294, June 2002

Examiner

Date Considered

\* Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 U.S. Department of Commerce  
(REV. 2-82) Patent and Trademark Office

Atty. Docket No.  
036217/US/2 - 475387-  
00191

Serial No.  
To be assigned

**10/ 551 735**

**INFORMATION DISCLOSURE STATEMENT  
BY APPLICANT**  
(Use several sheets if necessary)

Applicant(s)  
Guillermo J. Tearney

Filing Date  
Herewith (September 29,  
2005)

Group  
To be assigned

		Schmitt, J. M. et al, "Measurement of Optical-Properties O Biological Tissues By Low-Coherence Reflectometry" <u>Applied Optics</u> , Vol. 32, pages 6032-6042, October 1993
		Silberberg, Y. et al., "Passive-Mode Locking of a Semiconductor Diode-Laser", <u>Optics Letters</u> , Vol. 9, pages 507-509, November 1984
		Smith, L. Montgomery et al., "Absolute Displacement Measurements Using Modulation of the Spectrum of White-Light in a Michelson Interferometer", <u>Applied Optics</u> , Vol. 28, pages 3339-3342, August 1989
		Sonnenschein, C. M. et al., "Signal-To-Noise Relationships for Coaxial Systems that Heterodyne Backscatter from Atmosphere", <u>Applied Optics</u> , Vol. 10, pages 1600-1604, July 1971
		Sorin, W. V. et al., "Measurement of Rayleigh Backscattering at 1.55 mu m with 32 mu m Spatial Resolution", <u>IEEE Photonics Technology Letters</u> , Vol. 4, pages 374-376, April 1992
		Sorin, W. V. et al., "A Simple Intensity Noise-Reduction Technique for Optical Low-Coherence Reflectometry", <u>IEEE Photonics Technology Letters</u> , Vol. 4, pages 1404-1406, December 1992
		Swanson, E. A. et al., "High-Speed Optical Coherence Domair Reflectometry", <u>Optics Letters</u> , Vol. 17, pages 151-153, January 1992
		Takada, K. et al., "High-Resolution OFDR with Incorporated Fiberoptic Frequency Encoder", <u>IEEE Photonics Technology Letters</u> , Vol. 4, pages 1069-1072, September 1992
		Takada, Kazumasa et al., "Narrow-Band light Source with Acoustooptic Tunable Filter for Optical Low-Coherence Reflectometry", <u>IEEE Photonics Technology Letters</u> , Vol. 8, pages 658-660, May, 1996
		Takada, Kazumasa et al., "New Measurement System for Fault Location in Optical Wave-Guide Devices Based on an Interometric-Technique", <u>Applied Optics</u> , Vol. 26, pages 1603-1606, May 1987
		Tateda, Mitsuhiro et al., "Interferometric Method for Chromatic Dispersion Measurement in a Single-Mode Optical Fiber", <u>IEEE Journal Of Quantum Electronics</u> , Vol. 17, pages 404-407, March 1981

Examiner

Date Considered

\* Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 U.S. Department of Commerce  
(REV. 2-82) Patent and Trademark Office

Atty. Docket No.  
036217/US/2 - 475387-  
00191

Serial No.  
To be assigned  
**10/551735**

**INFORMATION DISCLOSURE STATEMENT  
BY APPLICANT**  
(Use several sheets if necessary)

Applicant(s)  
Guillermo J. Tearney

Filing Date  
Herewith (September 29,  
2005)

Group  
To be assigned

		Toide, M. et al., "Two-Dimensional Coherent Detection Imaging in Multiple Scattering Media Based the Directional Resolution Capability of the Optical Heterodyne Method", <u>Applied Physics B (Photophysics and Laser Chemistry)</u> , Vol. B52, pages 391-394, 1991
		Trutna, W. R. et al., "Continuously Tuned External-Cavity Semiconductor-Laser", <u>Journal of Lightwave Technology</u> , Vol. 11, pages 1279-1286, August 1993
		Uttam, Deepak et al., "Precision Time Domain Reflectometry in Optical Fiber Systems Using a Frequency Modulated Continuous Wave Ranging Technique", <u>Journal of Lightwave Technology</u> , Vol. 3, pages 971-977, October 1985
		Von Der Weid, J. P. et al., "On the Characterization of Optical Fiber Network Components with Optical Frequency Domain Reflectometry", <u>Journal of Lightwave Technology</u> , Vol. 15, pages 1131-1141, July 1997
		Wysocki, P.F. et al., "Broad-Spectrum, Wavelength-Swept, Erbium-Doped Fiber Laser at 1.55-Mu-M", <u>Optics Letters</u> , Vol. 15, pages 879-881, August 1990
		Youngquist, Robert C. et al., "Optical Coherence-Domain Reflectometry - A New Optical Evaluation Technique", <u>Optics Letters</u> , Vol. 12, pages 158-160, March 1987
		Yun, S. H. et al., "Wavelength-Swept Fiber Laser with Frequency Shifted Feedback and Resonantly Swept Intra-Cavity Acoustooptic Tunable Filter", <u>IEEE Journal of Selected Topics in Quantum Electronics</u> , Vol. 3, pages 1087-1096, August 1997
		Yun, S. H. et al., "Interrogation of Fiber Grating Sensor Arrays with a Wavelength-Swept Fiber Laser", <u>Optics Letters</u> , Vol. 23, pages 843-845, June 1998
		Yung, K. M., "Phase-Domain Processing of Optical Coherence Tomography Images", <u>Journal of Biomedical Optics</u> , Vol. 4, pages 125-136, January 1999
		Zhou, Xiao-Qun et al., "Extended-Range FMCW Reflectometry Using an optical Loop with a Frequency Shifter", <u>IEEE Photonics Technology Letters</u> , Vol. 8, pages 248-250, February 1996
		Zorabedian, Paul et al., "Tuning Fidelity of Acoustooptically Controlled External Cavity Semiconductor-Lasers", <u>Journal of Lightwave Technology</u> , Vol. 13, pages 62-66, January 1995
		Victor S. Y. Lin et al., "A Porous Silicon-Based Optical Interferometric Biosensor", <u>Science Magazine</u> , Vol. 278, pages 840-843, October 31, 1997

4826-7747-1232\1

Examiner

Date Considered

\* Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.